

**REMARKS**

Favorable reconsideration of the application is respectfully requested in view of the following remarks.

Claims 1-14 have been canceled and new Claims 15-24 are presented for consideration. Claims 15 and 21, which are the only independent claims currently at issue, are quite similar to Claims 1 and 9 respectively, except that both claims have been amended to better define one of the distinguishing characteristics associated with the present invention. Both independent claims now recite, in combination with the other claimed features, that the driving control means controls the driving duty of the electric motor by setting different driving duties of the electric motor which drive the hydraulic pump based on the driving condition of the hydraulic pump set by the driving condition setting means.

The Official Action observes that the combined disclosures contained in U.S. Patent No. 4,850,655 to *Takata et al.* and U.S. Patent No. 6,318,817 to *Martin et al.* would have directed one to construct a hydraulic brake system having the features as claimed. In particular, the Official Action notes that *Takata et al.* discloses a hydraulic brake system including a hydraulic pressure generating device for pressurizing brake fluid supplied from a reservoir to apply brake pressure to a wheel cylinder in response to operation of a brake operating member, as well as an auxiliary hydraulic pressure source having an accumulator and a hydraulic pump. The Official Action correctly notes that *Takata et al.* lacks a disclosure of a driving

condition setting means or a driving control means as claimed. Addressing these deficiencies, the Official Action comments that *Martin et al.* discloses such deficiencies.

*Martin et al.* describes a braking system in which the pressure in the accumulator is maintained at the minimum necessary to safely operate the vehicle. *Martin et al.* describes, beginning at column 16, line 41, how the vehicle deceleration and the coefficient of friction of the brake linings are computed or determined. These parameters are then used to compute the necessary braking force that is to be applied to the wheel cylinder. The system then determines the amount of pressure and the volume of braking fluid in the accumulator that is required to effect the required braking force, with the accumulator then being appropriately pressurized. However, there is no disclosure in *Martin et al.* of controlling the driving duty of the electric motor 110 by setting different driving duties of the electric motor which drive the hydraulic pump based on the driving condition of the hydraulic pump set by a driving condition setting means. Instead, *Martin et al.* only discloses controlling the output hydraulic pressure in the accumulator by "switching off the pump (and on again if necessary) or by leaving the pump running continuously and controlling its delivery pressure by using a valve to spill excess fluid to the storage tank" (Column 8, lines 64-67). Thus, *Martin et al.* merely discloses inputting a single driving duty to the electric motor to drive the pump. This is in contrast to the claimed invention at issue here where the driving control means controls the driving duty of

the electric motor by setting different driving duties of the electric motor to drive the hydraulic pump based on the driving condition of the hydraulic pump set by the driving condition setting means.

Considering the foregoing, if one were somehow motivated to modify the brake system described in *Takata et al.* in view of the disclosure contained in *Martin et al.*, the result would not be that which is defined in the claims as the invention. Accordingly, withdrawal of the rejection of record and allowance of this application are earnestly solicited.

Dependent Claims 16-20 and 22-24 are also allowable at least by virtue of their dependence upon allowable independent claims. These claims also define further distinguishing characteristics associated with the claimed invention. For example, Claim 16 recites that the driving condition setting means comprises a vehicle stop judging means which judges whether or not the vehicle is stopped, with the driving condition setting means setting the driving condition of the hydraulic pump so that the output hydraulic pressure of the auxiliary hydraulic pressure source is less when the vehicle stop judging means judges that the vehicle is stopped than the output hydraulic pressure when the vehicle stop judging means judges that the vehicle is running, and with the driving condition setting means setting the driving duty of the electric motor so that the driving duty of the electric motor is less when the vehicle stop judging means judges that the vehicle is stopped than the driving duty of the electric motor when the vehicle stop judging means judges that the

vehicle is running. Neither *Takata et al.* nor *Martin et al.* discloses these additional aspects of the claimed invention.

In addition, Claims 17 and 20 define that the vehicle condition detecting means comprises an operation amount detecting means for detecting an operating amount of the brake operating member and deceleration detecting means for detecting a deceleration of the vehicle, with the driving condition setting means judging the occurrence of brake fade based on the operating amount detected by the operating amount detecting means and the deceleration detected by the deceleration detecting means, and the driving condition setting means setting the driving condition of the hydraulic pump so that the output hydraulic pressure of the auxiliary hydraulic pressure source is greater when the driving condition setting means judges the occurrence of brake fade than the output hydraulic pressure under normal braking operation. Such additional characteristics of the present invention are not disclosed in *Takata et al.* or *Martin et al.*.

Further, Claim 22 recites that the vehicle condition detecting means comprises an operation amount detecting means which detects the operating amount of the brake operating member and deceleration detecting means which detects deceleration of the vehicle, with the driving condition setting means judging the presence of brake fade based on the operating amount detected by the operating amount detecting means and the deceleration detected by the

deceleration detecting means. *Takata et al.* and *Martin et al.* are devoid of any disclosure of this additional aspect of the claimed invention.

Should any questions arise in connection with this Amendment or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any issues pertaining to this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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